Installing the HP Integrity Server U160 SCSI Adapter

January 2004 (Second Edition)
Part Number 357857-002
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Introduction

This document describes how to install the HP Integrity server U160 SCSI Adapter (part numbers: A7059A/A7060A).

NOTE: To obtain updates to the driver sym_u3.sys (version 5.9.3.0 or later), check the HP Driver Support on http://www.hp.com/support/itaniumservers

Microsoft® Windows® Server 2003

To install the adapter for Microsoft Windows Server 2003:

1. Shut down the HP Integrity Server, unplug the power cord and remove the cover(s). Refer to the system documentation for instructions on how to shut down the server and remove the cover.

WARNING: Turn off and unplug the power to the HP Integrity server before removing its cover. Failure to do so may result in electric shock, potentially causing personal injury or damage to the adapter or the HP Integrity Server.

2. Use a standard grounding strap to reduce the risk of damage from static electricity.
3. Select an unused PCI slot and remove the cover bracket.
4. Push the adapter into the slot until it is firmly seated. Align the PCI bus edge connector on the U160 SCSI adapter with the PCI slot end.
5. Replace the screw that was removed from the cover bracket to secure the adapter's bulkhead to the chassis.
6. Replace the HP Integrity server cover(s) and plug in the power cord.

Automatic Configuration in Windows Server 2003

The HP Integrity server automatically detects PCI-compliant adapters when restarting. The adapter IRQ level and I/O address are automatically set by the Extensible Firmware Interface (EFI) each time the server restarts.

If configuration problems are encountered, refer to the HP Support site at http://www.hp.com/support/itaniumservers by searching or selecting a product.

After installing the adapter in the server and starting Windows Server 2003, the adapter needs the correct driver in order function properly. The correct driver may be obtained from http://www.hp.com/support/itaniumservers or the HP Smart Setup DVD supplied with the server.

To download from the website:

1. Go to http://www.hp.com/support/itaniumservers.
2. Search for part number A7060A (or A7059A for single channel).
3. Select the appropriate drivers.

4. Download the driver to a location on the server or to a system with a CD-ROM or a DVD-ROM writer.

If the driver from the HP Smart Setup DVD will be used, ensure that the driver can be found at this location \contents\driver\storage_and_raid\controllers\SCSI\A7059A_A7060A or identify the appropriate location.

NOTE: When using the driver from the DVD-ROM, the Hardware Update Wizard finds the driver automatically.

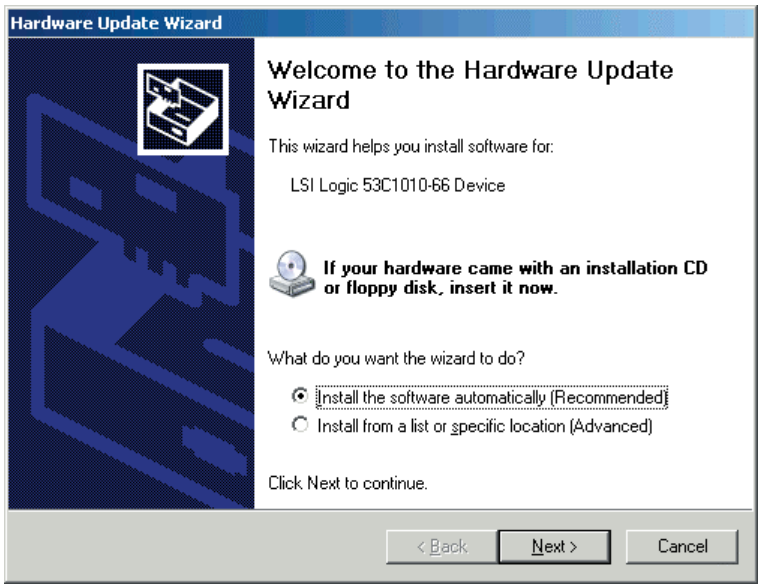
Once the driver is available, perform the following steps.

Opening Computer Management

1. Click **Start>Programs>Administrative Tools>Computer Management**.
2. If the Programs menu displays Administrative Tools, go to the section, "Updating the Driver." If the Programs menu does not display Administrative Tools, continue with the following steps.
3. Right-click on the system tray.
4. Select **Properties**.
5. Click the **Start** menu.
6. Click **Customize.**
7. Select **Display Administrative Tools**.
8. Click **OK**.
9. Click **OK**.
10. Click **Start>Programs>Administrative Tools>Computer Management**.

Updating the Driver

1. In the left pane of Computer Management, click **Device Manager**.
2. In the right pane of Computer Management, double-click on the device to be updated.
3. From the device properties page, select the **Driver** tab.
4. Click **Update Driver**. The Hardware Update Wizard displays.
5. Select **Install the software automatically (Recommended).**



6. Click **Next** to continue.
7. Click **Finish** to close the Hardware Update Wizard.
8. The driver has now been updated and the device properties page displays the new driver version.

NOTE: If the server has multiple HP A7059A or A7060A adapters, each device driver must be updated separately.

Troubleshooting SCSI Devices

Startup

During Power-On Self-Test, the EFI recognizes and displays all drives connected to the server. Refer to the system documentation for more information about the EFI.

If the EFI recognizes drives connected to an A7059A or A7060A adapter in the system, the NOS should also recognize them.

Functional Check

After updating the U160 SCSI Adapter(s), perform the following steps to ensure they operate properly.

NOTE: If the server has multiple HP A7059A or A7060A adapters you must perform the following steps for each adapter.

1. Shut down the server.
2. Connect a storage device (i.e., DS2300) to a port on the A7059A/A7060A SCSI Adapter using the appropriate SCSI cable.

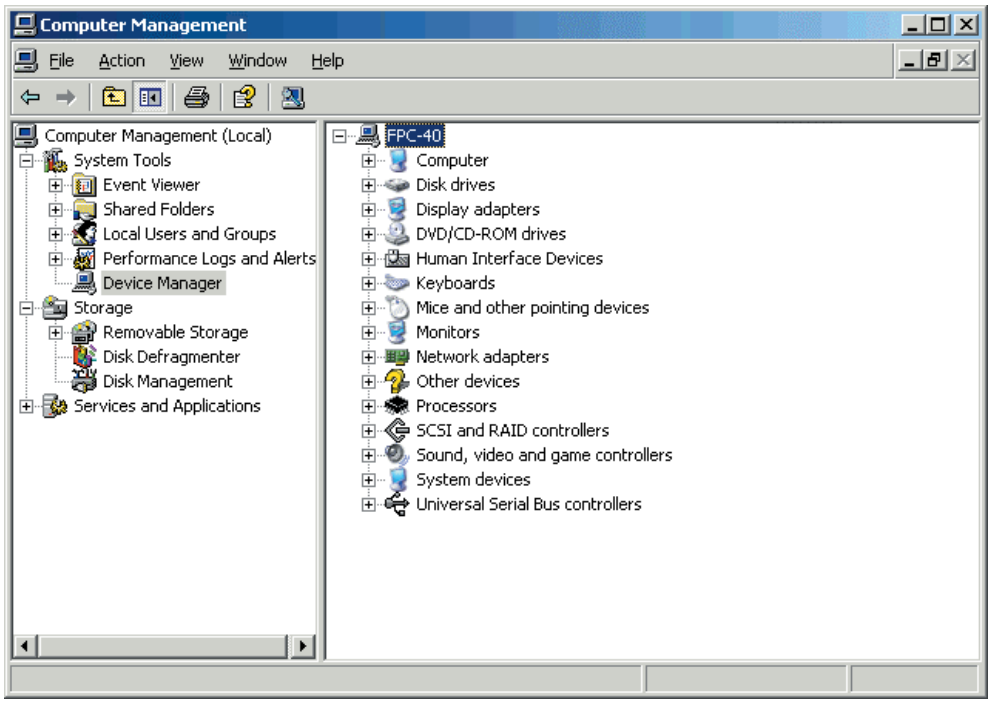
NOTE: Refer to the documentation for the storage device for information on SCSI ID conflicts, termination, and other configuration settings.

3. Properly terminate the storage device.
4. Load the storage device with disk drives.
5. Apply power to the storage device.
6. Apply power to the server.
7. During the Power On Self Test (POST), observe that the EFI recognizes all the SCSI drives connected to the server.

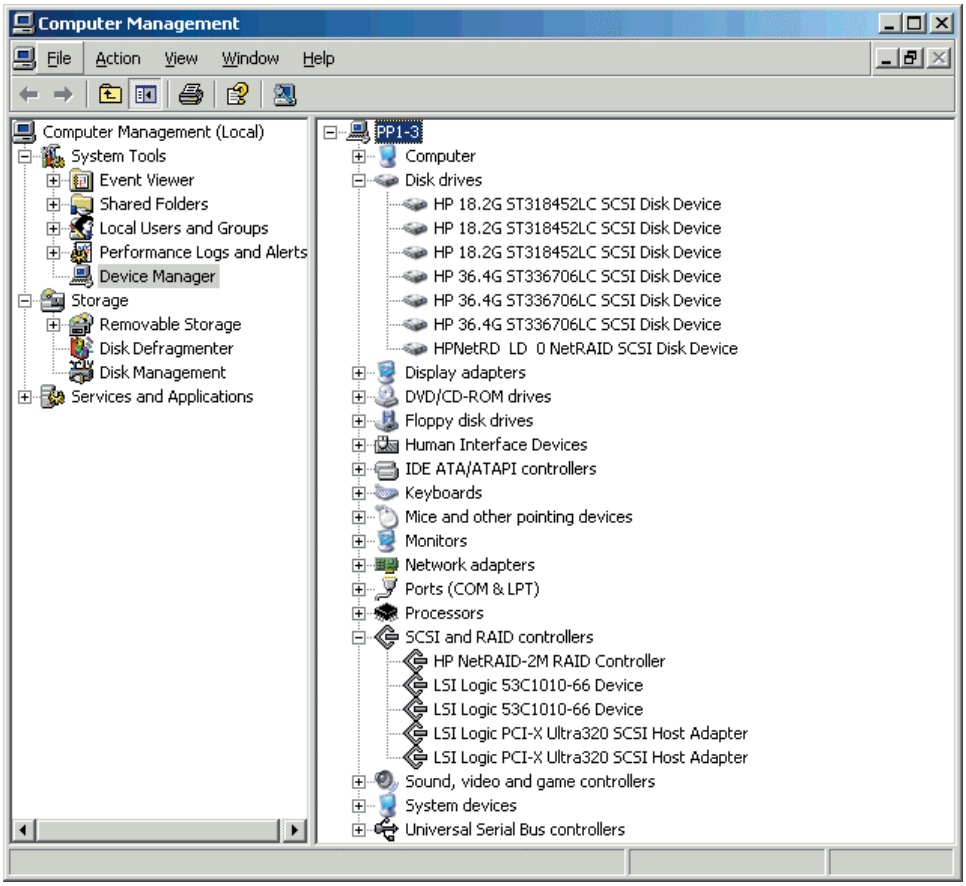
NOTE: If the POST does not recognize all the drives, check the cable connections to the storage devices.

8. Once the server displays the Boot Manager, load Windows Server 2003.

9. Click **Start, Programs>Administrative Tools>Computer Management**.
10. In the left pane of Computer Management, select **Device Manager**.



11. In the right pane of Computer Management, select **Disk drives**.
12. Computer Management now displays all the drives the server recognized during POST.



13. To ensure the server recognized drives connected to the updated U160 SCSI Adapter, format a drive connected to the adapter.

    NOTE: During formatting, observe the light flashing on the storage device connected to the desired SCSI adapter.

14. Format the rest of the drives as needed.

Linux

This HP Integrity server U160 SCSI Adapter is designed to run with the supported Linux distributions for Integrity servers, including Red Hat Advanced Workstation 2.1, Red Hat Advanced Server 2.1, and Debian 3.0. No special driver installation or configuration is required. For any questions regarding the HP implementation of Linux, please visit the HP Linux website at http://www.hp.com/go/linux. For questions regarding the HP implementation of Linux and Itanium, go to http://www.hp.com/united-states/linux/products/servers/itanium.html.

HP supports the SCSI adapters for Integrity Linux servers. For the Ultra2 and Ultra3 devices (80 MB/s and 160 MB/s respectively), Linux uses the sym53c8xx_2 driver.

This driver is included in the supported Linux distributions for the HP Integrity server and requires no special driver installation or configuration steps. For more information about Linux on Integrity servers, go to http://www.hp.com/go/linux.